

**Tug Technical Advisory Committee
Staff Notes from April 28, 2006**

Committee Members Present

Stuart Downer, Council Member, Chair
Mike Doherty, Council Member
Jim Davis, Council Member
Andy Coe, Puget Sound Pilots
Bruce Wishart, People for Puget Sound

Others Present

Norm Davis, Ecology (WDOE)
Jon Neel, Ecology (WDOE)
Frank Holmes, Western States Petroleum Association (WSPA)
John Veentjer, Pacific Merchants Shippers Association
Jason Tama, United States Coast Guard
Rich Berkowitz, Transportation Institute
Fred Felleman, (WAVE)
Jeff Shaw,
David Sawicki, BP
Russ Sawicki, Public
Craig Lee, Public
Dorine Coleman, Council Staff

The meeting convened at 12:11 p.m. in a conference room on the fourth floor of the Insurance Building on the Capitol Campus in Olympia.

- Chair opened the meeting with a brief period for individual introductions.
- Chair mentioned that the Committee would operate informally, encouraged open discussion, and assured all those present that their concerns would be part of the record.
- Chair closed his opening remarks by reminding the Committee that they have been challenged by the Legislature to determine whether the current system is effective.

Staff Notes

All persons present participated fully in the discussion

Sentiments and solutions held by various members of the group are set forth below by topic:

I. Studies/ Available Literature about Rescue Tugs

- A. Committee Member Bruce Wishart mentioned that there was a 2000-page Report to the Legislature related to Rescue Tugs, which would be a valuable resource for Staff to find additional references on the topic. The Appendices might contain useful information, such as the use of rescue tugs in Europe.
- B. It was stated that a clarification to the Committee's recommendation is needed, as well as more discussion about capabilities/ locations for tugs.
- C. A study about the tug in the Juan de Fuca Strait was referenced, and there was discussion about that tug's capabilities.
- D. There was discussion about using studies of European tugs, and incorporating them in the Committee's deliberations.
- E. Other various studies were mentioned including:
 - 1. Emergency Towing Studies, May 1995 by USCG
 - 2. Emergency Towing- Murray Fenton & Associates (Department of Transportation).
 - 3. International Tug Salvage (Marine Design Group)
 - 4. Ship Adrift Analysis- North Puget Sound/ Columbia Rive 1994-2002
 - 5. Department of Ecology- VEAT, vessel traffic- somewhat outdated, but a thorough compilation of where incidents occur.
- F. It was mentioned that not all incidents that occur on vessels are reported, although incidents involving steering are called to the attention to the US Coast Guard, per established protocol.
- G. Commander Tama mentioned that the Coast Guard tracks as much as possible, depending on what information is available, but action is not taken on all reported incidents.

II. Tug Capabilities

- A. Committee Member Capt. Andy Coe mentioned that the number of users and diverse traffic patterns put Washington waterways at a much more significant risk, compared to Alaskan waters. These conditions demand a vessel with state of the art capabilities.
- B. The Chair asked if more information was needed.
- C. Cpt. Coe stated that it was not necessary to analyze every piece of data to realize that it would be wise to upgrade the tug, and that he wasn't sure if all the information should be used as a basis for making a decision.
- D. Committee Member Jim Davis agreed with Cpt. Coe, and mentioned that he was interested in what the Coast Guard has to say.
- E. Committee Member Wishart stated that there is a need to consider capability and cost, and have a discussion about the existing data to determine if there are gaps.
- F. It was mentioned that tugs have achieved excellence, and that tugs are built by design for service and should be multi-missioned.
- G. There was a concern that having a multi-mission tug would compromise its existing responsibility of towing.

- H. It was stated that over time there would be a need to improve capabilities because the nature of the fleet on water has changed as well.
- I. The Chair mentioned that he would make a recommendation to Chairman Cooper that the Tug TAC become a Standing Committee to ensure the Committee has all necessary information.
- J. There was a comment about collaborating with the Canadians to learn what information they have.
- K. The Coast Guard Commander asked what information the Committee would like to have from the Coast Guard, and members requested collisions data, as well as the summaries of the Coast Guard Report to the Harbor Safety Commission.

III. Vessels- reporting incidents

- A. There was discussion about reporting incidents involving vessels, and that accuracy in reporting varies by company.
- B. It was mentioned that the Exxon Valdez spill occurred for a number of reasons that do not exist in Washington.
- C. It was stated that some dilapidated vessels accepted at other ports do not even come to Washington due to the number of efforts in this State to prevent their entry.
- D. It was recommended that the Committee keep in mind that the situation has improved significantly since Governments first began focusing on this issue.
- E. There was discussion about certain things that are not reported by DOE that need to be reported, e.g. what would have happened without the tug at Neah Bay.
- F. The Chair mentioned that this needs to become part of the recommendation, and reminded the Committee that at the last meeting members agreed that the recommendation would be to have a year-round, fully-funded tug in the Strait.
- G. The Chair reminded the Committee that the current discussion is whether other vessels need to be stationed elsewhere.
- H. It was mentioned that there needs to be some type of analysis about where tugs are placed.

IV. Types of Tugs- number, location, etc.

- *The Chair noted that the Committee is not recommending any legislative change to the existing system, at least for the short term.*
- A. There was a discussion about the current state of tugs:
 - 1. line-hauled.
 - 2. double-drummed.
 - 3. 4,000 glt out there now.

- B. There was a question about what capabilities constitute “state of the art.”
 - 1. 10,000 hp plus a Z-drive?
 - 2. Propulsion- what horsepower requirements?
- C. It was stated that the Committee should be considering upgrading something that can sit out at Buoy J for extended periods of time.
- D. It was questioned whether the Committee wanted a tug that could assist a vessel and tow it all the way to port, or assist until other tugs arrive.
- E. The discussion moved back to the issue of propulsion, which is the key issue, for maneuverability, etc.
- F. It was stated that in escort mode the Voith Schneider is ideal.
- G. Mr. Fred Felleman stated that Z-drives of some horsepower would be the preferred propulsion mechanism.
- H. It was also mentioned that Z-drives seem to be the best compromise.
- I. It was suggested that the Committee determine what performance criteria is desired, i.e., what kind of sea conditions the tug should operate in, etc.
- J. Ecology Representative Norm Davis mentioned that there are two types of tug: severe seas and extreme duty.
- K. It was stated that the Committee determine the tug’s mission, which would then dictate size, propulsion, etc.
- L. The Chair reminded the Committee that they saved the topic of capability for this meeting, and asked members if they felt the need to upgrade tug capabilities.
- M. The Committee agreed that there is a need to upgrade.
- N. Committee Member Wishart stated that he would like to have more information before making a decision.
- O. It was stated that bidding on a long term contract may bring costs down, and that the Committee build to probability.
- P. Committee Member Mike Doherty reminded the Committee that he represents a coastal community, which sees a unique resource and are aware of the safe haven for tankers in their coasts. He stated that people look to the Government to protect them, and also expect that the Government make business deals to pass costs down.
- Q. Committee Member Doherty does not think one tug is enough.
- R. WSPA representative Frank Holmes stated that the market controls prices, and that it is not possible to pass costs down.
- S. The Committee considered the lesson with Exxon and determined that Alaska was politically embarrassed by that incident.
- T. It was mentioned that the PRT needs to be evaluated, and whether the Committee desires a heavy duty or extreme duty tug.
- U. Mr. Felleman stated that the Committee needs to acknowledge that vessels are getting “jumboed.”
- V. It was questioned whether there was record of an incident when the current system did not work.
- W. There was more discussion about severe vs. extreme tugs.
 - 1. Severe tug capabilities:
 - a. winds: 30-50 knots

- b. 12-18 feet wave height
 - c. 265,000 dead weight ton ship
- X. The Committee mentioned that it would be useful to have the Noah-weather buoy data to determine the number of days of severe/ extreme weather.
- Y. There was discussion about where to station an additional tug, and it was mentioned that if it is at Neah Bay, then perhaps it should be in Canada for most of the winter.
- Z. It was stated that crew safety needs to be considered.
- AA. Cpt. Coe mentioned that it would be useful to know alert-class capabilities.
- BB. There was more discussion about tug capabilities:
 - 1. Strategic terminals for gear.
 - 2. Ability to throw foam a good idea.
 - 3. Tanker escorts.
 - 4. Asset in clean-up/ fire-fighting- would be considered “state of the art.”
 - 5. ITOS- valuable asset; keep it maintained.
 - 6. Firefighting:
 - a. Not all new tugs have this capability
 - b. Need to consider if desired tug with optimal traits can even be built.
 - c. Mr. Jeff Shaw stated that calling for a tug to combat a fire on a ship is ridiculous, and that the primary fire fighting response team is on the ship.
 - d. Mr. Felleman stated that fire fighting for balcony fires is very useful.
 - e. The Chair questioned the utility of foam-throwing capabilities.
- CC. There was discussion about the target vessel, and the matrix below was constructed.

TARGET VESSEL

	Assist	Rescue	Barb Foss	8K hp	10K hp	VOITH/ SC	Z drive	Conv + Noz	Conv
3 hrs- Buoy J		↓	x	x	x				
60 nm w/I J			x	x	x				
Underway 30 mins			x	x	x				
265K dwt	Ø			x	x				
40-60 kts			On scene	?	?	x	x	Ø	
20-25ft			On scene	?	?	x	x	Ø	
Fire/ skim/ disperse									
Maneuverability			Ø	N/a	N/a	H	H	M	Ø
Reliability			Ø						

Key:
x- yes
Ø- No
H- High
M- Medium

V. Tug Use

- A. There was discussion about the primary purpose of tugs
- B. Mr. Felleman stated that the primary mission needs to be sea-keeping, but that we would be doing ourselves a disservice if other capabilities tugs can have.
- C. Mr. Shaw stated that the primary purpose is rescue.
- D. It was mentioned that tugs have the least capability in this state.
- E. Mr. Felleman stated that firefighting, skimming, etc. are simple add-ons that would not compromise the primary mission of the tug, and add a lot of safety value.
- F. Mr. Veentjer stated that the primary mission of tugs is not response, it is prevention.
- G. Recommendations on what constitutes “state of the art” were encouraged.

H. The Chair suggested obtaining specification sheets from Alaska on its response capacity.

I. Other points of concern:

1. What DWT can vessel Barbara Foss handle given changes in wind/sea?
2. How long do vessels-265 kdwt come through- now and in the future?
3. Role of Vancouver- recommend to full OSAC to address.
4. Define % of vessels this recommendation serves.
5. Still need to define “rescue.”
6. Whether newly designed vessel, should have the capability to do the job, or pass it off to a more capable vessel.
7. Reliability/Sea worthiness of Z drives in extreme weather conditions.

VI. Wrap-up

The Chair asked for comments from attendees individually. The Committee would like to have figures on annual contract costs for crews based on the systems used in Europe, Japan and South Africa, spec sheets from Garth PRT vessels, and formulate a cost-estimate to give to Legislature for state of the art tug mechanisms.

VII. Next Meeting

The next meeting will be on May 12, 2006 from 10 a.m. to 3 p.m. on the Fourth floor of the Insurance Building on the Capitol Campus.